

HOMEOSTASIS

Homeostasis, any self-regulating process by which biological systems tend to maintain stability while adjusting to conditions that are optimal for survival. If homeostasis is successful, life continues; if unsuccessful, disaster or death ensues. The stability attained is actually a dynamic equilibrium, in which continuous change occurs yet relatively uniform conditions prevail.

MECHANISM

There are number of mechanism operating in the body of an organism to maintain homeostasis. Logically homeostasis require a check and balance system which is termed as feedback system which is regulated by receptor and effector.

It consists of

- Negative feedback loops that counteract changes of various properties from their target values i-e set points.
- Positive feedback loops, which amplify their initiating stimuli or move the system away from its starting state.

HOMEOSTASIS PROCESSES

Homeostasis concerned with three major processes:

1. Osmoregulation
2. Excretion
3. Thermoregulation.

OSMOREGULATION

Osmoregulation is the active regulation of the osmotic pressure of an organism's body fluids, detected by osmoreceptors, to maintain the homeostasis of the organism's water content; that is, it maintains the fluid balance and the concentration of electrolytes (salts in solution which in this case is represented by body fluid) to keep the body fluids from becoming too diluted or concentrated. Osmotic pressure is a measure of the tendency of water to move into one solution from another by osmosis.

3. Kidney		4. Lungs	
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Qno-05:

The vertebrates have both nonspecific and specific mechanism for defending themselves against _____.

1. Microorganism	✓	2. Fluid feeders	
3. Parasite		4. fungi	

Qno-06:

The circulatory system of some invertebrates are of _____.

1. Close type		2. Open type	✓
3. Both open & close		4. None of above	

Qno-07:

The system in which a pumping heart moves a fluid into blood vessels are called _____.

1. Close type	✓	2. Open type	
3. Both open & close		4. None of above	

Qno-08:

How many types of circulatory fluids are there?

1. One		2. Two	✓
3. Three		4. Four	

Qno-09:

The mixture of blood and interstitial fluid is _____.

1. Hemolymph	✓	2. Plasma	
3. Hemocoel		4. Blood	

Qno-10:

Hemocoel is the body cavity found in _____.

1. Amoeba		2. Flat worms	
3. Grass hopper	✓	4. Paramecium	

Qno-11:

RBCs is absent in_____.

1. Cytoplasm		2. Kidneys	
3. Liver		4. Lymph	✓

Qno-44

The blood cell involve in blood clotting is_____.

1. WBCs		2. RBCs	
3. Platelets	✓	4. N.O.T	

Qno-45

The prothrombin activator converts prothrombin into_____.

1. Thrombin	✓	2. Fibrinogen	
3. Elastin		4. N.O.T	

Qno-46

Which has the thickest wall?

1. Right auricle		2. Left auricle	
3. Right ventricle		4. Left ventricle	✓

Qno-47

For reaching left side of the heart, blood must pass through_____.

1. Liver		2. Kidneys	
3. Lungs	✓	4. Brain	

Qno-48

The greatest percentage of blood volume is in:

1. Heart		2. Capillaries	
3. Aorta		4. Venules	✓

Qno-49

How many red blood cells are there in a drop of blood?

1. 15 million		2. 50,000	
3. 5 million	✓	4. ½ million	

Qno-50